

CONTENTS

Number 1: January 1973

Original Articles

- EFFECTS ON METABOLISM AND CARDIAC OUTPUT OF GLUCOSE-POTASSIUM SOLUTION, WITH AND WITHOUT INSULIN** 1
Emerson A. Moffitt, M.D., George D. Molnar, M.D., James R. Pluth, M.D., Roger D. White, M.D., and Dwight C. McGoon, M.D.
- PERMANENT ATRIAL PACING: IMPROVED METHODS OF ELECTRODE IMPLANTATION AND CURRENT THERAPEUTIC USES** 16
Richard A. Perryman, M.B., and Will C. Sealy, M.D.
- AN IMPROVED MITRAL VALVE PROSTHESIS** 25
Arthur C. Beall, Jr., M.D., George C. Morris, Jr., M.D., George P. Noon, M.D., Gene A. Guinn, M.D., George J. Reul, Jr., M.D., Edward A. Lefrak, M.D., and S. Donald Greenberg, M.D.
- CORONARY ARTERY BYPASS WITH INTERNAL MAMMARY AND SPLENIC ARTERY GRAFTS** 35
W. Sterling Edwards, M.D., Charles E. Lewis, M.D., William R. Blakeley, M.D., and Len Napolitano, Ph.D.
- ATRIOPULMONARY SHUNT** 41
Jorge O. Just Viera, M.D., Ernesto Rivé Mora, M.D., Olga L. Rodriguez, M.D., Pablo I. Altieri, M.D., and Carlos E. Girod, M.D.
- THE FREE INTERNAL MAMMARY ARTERY BYPASS GRAFT: USE OF THE IMA IN THE AORTA-TO-CORONARY ARTERY POSITION** 50
Floyd D. Loop, M.D., Nick Spampinato, M.D., Chalit Cheanvechai, M.D., and Donald B. Effler, M.D.
- SCANNING ELECTRON MICROSCOPY OF ALVEOLAR SURFACE TOPOGRAPHY IN INDUCED ACUTE RESPIRATORY INSUFFICIENCY** 56
Robert H. Liss, Ph.D., Farouk A. Molokhia, M.D., Benedict D. T. Daly, M.D., Thomas V. N. Ballantine, M.D., and John C. Norman, M.D.

Contents of Volume 15, January-June, 1973

- THE ADULT FORM OF PULMONARY HAMARTOMA: A REAPPRAISAL** 67
Malvin Weinberger, M.D., Gerard S. Kakos, M.D., and James W. Kilman, M.D.

- ELECTRON MICROSCOPICAL OBSERVATIONS ON MEDIASTINAL
NEUROLEMMOMA, NEUROFIBROMA, AND GANGLIONEUROMA** 73
*Maruf A. Razzuk, M.D., Harold C. Urschel, Jr., M.D., James A. Martin, Ph.D.,
William B. Kingsley, M.D., and Donald L. Paulson, M.D.*

Case Report

- SUCCESSFUL TREATMENT OF POSTINTUBATION SUBGLOTTIC
STENOSIS WITH INTRALESIONAL STEROID INJECTIONS** 84
Lawrence I. Bonchek, M.D.

How to Do It

- MYOPLASTY FOR CLOSURE OF TRACHEOBRONCHIAL FISTULA** 88
Nicholas J. Demos, M.D., and Joseph J. Timmes, M.D.

Current Review

- NEWER DIAGNOSTIC TESTS IN THORACIC SURGERY: A PERSPECTIVE** 94
David B. Skinner, M.D.

News of the Societies

- THE SOUTHERN THORACIC SURGICAL ASSOCIATION
MEMBERSHIP ROSTER** 102

Notice from the Southern Thoracic Surgical Association 15

Notice from the American Board of Thoracic Surgery 40

Number 2: February 1973

Original Articles

- MANAGEMENT OF INFANTS WITH LARGE VENTRICULAR SEPTAL
DEFECTS: RESULTS WITH TWO-STAGE SURGICAL TREATMENT** 109
*James Henry, M.D., Samuel Kaplan, M.D., James A. Helmsworth, M.D.,
and J. Tracy Schreiber, M.D.*

67	SERIAL COAGULATION STUDIES IN PATIENTS UNDERGOING THE MUSTARD PROCEDURE	120
	<i>Anne L. Wedemeyer, M.D., Aldo R. Castaneda, M.D., J. Roger Edson, M.D., and William Krivit, M.D.</i>	
73	PULMONARY BLOOD FLOW MEASUREMENTS FOLLOWING VENA CAVA-TO-PULMONARY ARTERY ANASTOMOSIS	128
	<i>Francis Robicsek, M.D., Walter P. Scott, M.D., Norris B. Harbold, M.D., Harry K. Daugherty, M.D., and Donald C. Mullen, M.D.</i>	
84	FAILURE OF DEMAND FUNCTION IN TEMPORARY EPICARDIAL BIPOLAR PACEMAKER SYSTEMS	135
	<i>James D. Yates, M.D., and Thomas A. Preston, M.D.</i>	
	POSTOPERATIVE CHANGES IN AUTOLOGOUS FASCIA LATA HEART VALVE GRAFTS: A PATHOLOGICAL STUDY	140
	<i>Wieslaw T. Dubiel, M.D., Lennart Johansson, M.D., and Roger Willén, M.D.</i>	
88	THE USE OF RATED BLOOD FLOW TO DESCRIBE THE OXYGENATING CAPABILITY OF MEMBRANE LUNGS	156
	<i>William F. Holdefer, M.D., and W. G. Tracy, B.S.</i>	
94	CLINICAL APPLICATIONS OF FEMORAL VEIN-TO-ARTERY CANNULATION FOR MECHANICAL CARDIOPULMONARY SUPPORT AND BYPASS	163
	<i>Robert L. Berger, M.D., Virender K. Saini, M.D., and Everett L. Dargan, M.D.</i>	
	LONG-TERM MEMBRANE OXYGENATION IN RESPIRATORY FAILURE	170
2	<i>William J. Rea, M.D., Jon W. Eberle, Ph.D., Roger R. Ecker, M.D., John Watson, Ph.D., and W. L. Sugg, M.D.</i>	
5	MEASUREMENTS OF ALVEOLAR SAC DIAMETERS BY INCIDENT-LIGHT PHOTOMICROGRAPHY: EFFECTS OF POSITIVE-PRESSURE RESPIRATION	179
0	<i>Anthony P. Moreci, Ph.D., and John C. Norman, M.D.</i>	
	HEMORRHAGIC LUNG SYNDROME: HEMORRHAGIC LUNG INFARCTION FOLLOWING PULMONARY EMBOLICITY	187
	<i>C. M. Couves, M.D., S. S. Nakai, M.D., L. P. Sterns, M.D., J. C. Callaghan, M.D., and B. J. Sproule, M.D.</i>	
	PREVENTION OF PULMONARY EMBOLUS WITH VENA CAVAL UMBRELLA: RESULTS IN 150 PATIENTS	196
	<i>Thomas O. Orvald, M.D., George M. Callard, M.D., and James R. Jude, M.D.</i>	
	BILATERAL SIMULTANEOUS PLEURODESIS BY MEDIAN STERNOTOMY FOR SPONTANEOUS PNEUMOTHORAX	202
	<i>I. Kalnins, M.B., T. A. Torda, F.F.A.R.C.S., and J. S. Wright, F.R.A.C.S.</i>	

How to Do It

PACEMAKER WIRE EXTENSION FOR PERMANENT AND TEMPORARY PACING

207

T. Z. Lajos, M.D.

Note

A METAL RING MARKER FOR THE PROXIMAL END OF AN AORTA-TO-CORONARY ARTERY GRAFT

210

Chalit Cheanvechai, M.D., and Donald B. Effler, M.D.

Editorial

MEDICAL DEVICE STANDARDS AND THE THORACIC AND CARDIOVASCULAR SURGEON

213

W. Gerald Rainer, M.D.

Correspondence

215

Frederick K. Vontz, M.D., Sam E. Myrick, Jr., M.D., and John R. Ibach, Jr., M.D.

Notice from the American Board of Thoracic Surgery 119

Number 3: March 1973

Original Articles

THE EFFECT ON PULMONARY ULTRASTRUCTURE OF DACRON-WOOL FILTRATION DURING CARDIOPULMONARY BYPASS

217

Reid S. Connell, Ph.D., U. Scott Page, M.D., Thomas D. Bartley, M.D., John C. Bigelow, M.D., and Michael C. Webb

EFFECTS OF EXTRACORPOREAL CIRCULATION UPON BLOOD LIPIDS

230

Jack E. Arrants, M.D., Richard H. Gadsden, Ph.D., Mary B. Huggins, B.S., and William H. Lee, Jr., M.D.

GUIDELINES FOR MINIMAL STANDARDS IN CARDIOVASCULAR SURGERY

243

William H. Muller, Jr., M.D., Albert Starr, M.D., Dwight C. McGoon, M.D., Robert M. Smith, M.D., and Norman E. Shumway, M.D.

THE SAFETY OF COMBINED AORTIC VALVE REPLACEMENT
AND CORONARY BYPASS GRAFTING 249

*Richard P. Anderson, M.D., Lawrence I. Bonchek, M.D., James A. Wood, M.D.,
Richard P. Chapman, M.D., and Albert Starr, M.D.*

RETROGRADE PRESSURES AND FLOWS IN CORONARY ARTERIAL
DISEASE 256

Watts R. Webb, M.D., Frederick B. Parker, Jr., M.D., and John F. Neville, Jr., M.D.

PULMONARY AND CARDIOVASCULAR IMPLICATIONS OF
DRUG ADDICTION 263

*William L. Joseph, M.D., H. Stephen Fletcher, M.D., Joseph M. Giordano, M.D.,
and Paul C. Adkins, M.D.*

PLASTIC TUBE PROSTHESIS FOR THE SURGICAL TREATMENT OF
PERFORATIONS IN ESOPHAGEAL STRICTURES 275

József Imre, M.D.

How to Do It

SURGICAL CORRECTION OF TRANSPOSITION OF THE GREAT
VESSELS: TECHNICAL CONSIDERATIONS 281

Harold M. Albert, M.D., Robert Carter, M.D., and Bert A. Glass, M.D.

CONTROL OF PROXIMAL SUBCLAVIAN ARTERIAL INJURY WITH
INTERNAL SHUNT CATHETER 285

*Donald B. Doty, M.D., Chammahn Kongtaworn, M.D., and
Johann L. Ehrenhaft, M.D.*

Case Reports

PRIMARY ENDOBRONCHIAL MYXOMA 287

Herand Abcarian, M.D., Hwa Ta Lee, M.D., and Walter L. Barker, M.D.

MULTIPLE CIRCUMSCRIBED PULMONARY HEMATOMAS
MASQUERADING AS METASTATIC CARCINOMA 291

*Richard M. Engelman, M.D., Arthur D. Boyd, M.D., Manfred Blum, M.D.,
and Melvin H. Worth, M.D.*

PLEURAL EFFUSION AND FIBROSIS SECONDARY TO
SANSERT ADMINISTRATION 295

Jeffrey M. Dunn, M.D., and Herbert Sloan, M.D.

Note

LOCATION OF THE PROXIMAL LEFT ANTERIOR DESCENDING
CORONARY ARTERY 299

George Robinson, M.D.

Contents of Volume 15, January-June, 1973

Current Review

- TRACHEOBRONCHIAL RECONSTRUCTION** 301
A. P. Naef, M.D.

Editorials

- BLOOD FILTRATION DURING EXTRACORPOREAL CIRCULATION** 313
J. Donald Hill, M.D.
- HOW MANY OPEN HEARTS?** 317
J. Gordon Scannell, M.D.

News of the Societies

- THE SOCIETY OF THORACIC SURGEONS, 1973-1974**
- OFFICERS** 319
- MEMBERS** 320
- Notice from The Society of Thoracic Surgeons* 248
- Notice from the American Board of Thoracic Surgery* 284
- Notice from the Southern Thoracic Surgical Association* 312

Number 4: April 1973

Original Articles

- TREATMENT OF CARCINOMA OF THE ESOPHAGUS AND GASTRIC CARDIA WITH CONCENTRATED PREOPERATIVE IRRADIATION FOLLOWED BY EARLY OPERATION: A PROGRESS REPORT** 333
Laurence K. Groves, M.D., and Antonio Rodríguez-Antúnez, M.D.
- THE VALUE OF CHEST WALL RESECTION IN THE TREATMENT OF SUPERIOR SULCUS TUMORS OF THE LUNG** 339
Marvin M. Kirsh, M.D., Richard Dickerman, M.D., Juan Fayos, M.D., Isadore Lampe, M.D., Ronald V. Pellegrini, M.D., Otto Gago, M.D., and Herbert Sloan, M.D.
- HYPOKALEMIA: PHYSIOLOGICAL ABNORMALITIES DURING CARDIOPULMONARY BYPASS** 347
Kent A. Vasko, D.V.M., Richard A. DeWall, M.D., and Ann M. Riley, R.N.

IN VIVO DETERMINATION OF RENAL TISSUE OXYGENATION DURING PULSATILE AND NONPULSATILE LEFT HEART BYPASS	354
<i>N. D. Mukherjee, M.D., A. V. Beran, B.S., J. Hirai, M.D., A. Wakabayashi, M.D., D. R. Sperling, M.D., W. F. Taylor, M.D., and J. E. Connolly, M.D.</i>	
MYOCARDIAL CONTRACTILE FORCE AS INFLUENCED BY DIRECT CORONARY SURGERY	364
<i>Peter Hairston, M.D., Walter H. Newman, Ph.D., and Herman B. Daniell, Ph.D.</i>	
LONG-TERM ANATOMICAL RESULTS OF INTRACARDIAC REPAIR OF TETRALOGY OF FALLOT	371
<i>Ricardo Ceballos, M.D., and John W. Kirklin, M.D.</i>	
EXPERIENCE WITH PERICARDIECTOMY	378
<i>Richard H. Dean, M.D., Duncan A. Killen, M.D., Rollin A. Daniel, Jr., M.D., and Harold A. Collins, M.D.</i>	
FRACTURED STERNUM WITH FLAIL CHEST AND POSTTRAUMATIC PULMONARY INSUFFICIENCY SYNDROME: REPORT OF 4 PATIENTS	386
<i>Meredith L. Scott, M.D., James F. Arens, M.D., and John L. Ochsner, M.D.</i>	
REPAIR OF ANTEROSEPTAL VENTRICULAR ANEURYSM	394
<i>William S. Stoney, M.D., William C. Alford, Jr., M.D., George R. Burrus, M.D., and Clarence S. Thomas, Jr., M.D.</i>	
RUPTURE OF THE AORTA: A DIAGNOSTIC TRIAD	405
<i>Panagiotis N. Symbas, M.D., Denis H. Tyras, M.D., R. Edwin Ware, M.D., and Charles R. Hatcher, Jr., M.D.</i>	
Case Reports	
SURGICAL TREATMENT OF MYCOTIC ANEURYSM ASSOCIATED WITH COARCTATION OF THE AORTA	411
<i>H. Newland Oldham, Jr., M.D., Joseph F. Phillips, M.D., Paul H. Jewett, M.D., and James T. Chen, M.D.</i>	
RUPTURED MYCOTIC ANEURYSM COMPLICATING COARCTATION OF THE AORTA	419
<i>Stanley J. Bodner, M.D., Zell A. McGee, M.D., and Duncan A. Killen, M.D.</i>	
ISOLATED MASSIVE CHYLOPERICARDIUM	427
<i>Miklós Csanády, M.D., and Gábor S. Kovács, M.D.</i>	
CLOTH DISRUPTION IN THE STARR-EDWARDS COMPOSITE MITRAL VALVE PROSTHESIS	434
<i>Clarence S. Thomas, Jr., M.D., Duncan A. Killen, M.D., William C. Alford, Jr., M.D., George R. Burrus, M.D., and William S. Stoney, M.D.</i>	
Editorial	
MANAGEMENT OF LONGITUDINAL STRICTURE RESULTING FROM REFLUX ESOPHAGITIS	439
<i>John E. Rayl, M.D., and Jeffrey R. Balison, M.D.</i>	

Correspondence

442

Nicholas J. Demos, M.D.

Notice from the American Board of Thoracic Surgery 346

Notice from the Southern Thoracic Surgical Association 353

Erratum 363

Number 5: May 1973

Original Articles

AN IMPROVED SURGICAL TECHNIQUE FOR THE COMPLICATED 443

HIATAL HERNIA WITH GASTROESOPHAGEAL REFLUX

Harold C. Urschel, M.D., Maruf A. Razzuk, M.D., Richard E. Wood, M.D.,
Nicoll F. Galbraith, M.D., and Donald L. Paulson, M.D.

RECURRENT TRACHEOESOPHAGEAL FISTULA 452

William Stanford, Col, Raymond G. Armstrong, Lt Col, Robert E. Cline, Maj,
and M. J. Williams, Col, all MC, USAF

TRACHEAL STENOSIS FOLLOWING CUFFED TUBE TRACHEOSTOMY: 456
ANATOMICAL VARIATION AND SELECTED TREATMENT

Armand A. Lefemine, M.D., Kenneth MacDonnell, M.D., and Hyung S. Moon, M.D.

PRIMARY MALIGNANT TUMORS OF THE ESOPHAGUS OTHER 463
THAN TYPICAL EPIDERMOID CARCINOMA

Alan D. Turnbull, M.D., Peter Rosen, M.D., John T. Goodner, M.D.,
and Edward J. Beattie, M.D.

REPLACEMENT OF SUPERIOR VENA CAVA WITH AUTOGENOUS 474
TISSUE: AN EXPERIMENTAL STUDY

Robert E. Miller, Col, MC, USA, Neil J. Corneil, Capt, VC, USA, and
Francis J. Sullivan, Ph.D.

SUPERIOR VENA CAVAL OBSTRUCTION SECONDARY TO 483
FIBROSING MEDIASTINITIS

Robert E. Miller, Col, MC, USA, and Francis J. Sullivan, Ph.D.

HEMODYNAMIC OBSERVATIONS DURING AND AFTER 493
PULMONARY ARTERY BANDING

Joe R. Utley, M.D.

A SIMPLE, SAFE, AND RAPID TECHNIQUE FOR THE MANAGEMENT 510
OF RECURRENT COARCTATION OF THE AORTA

Clarence S. Weldon, M.D., Alexis F. Hartmann, Jr., M.D., Neil G. Steinhoff, M.D.,
and James D. Morrissey, M.D.

SERIAL EJECTION TIMES IN PATIENTS REQUIRING MULTIPLE AORTIC VALVE REPLACEMENTS	520
<i>Alfred F. Parisi, Maj, Eliot Schechter, Lt Col, and William Stanford, Col, all MC, USAF</i>	

Collective Review

THE CARDIAC LYMPHATICS	526
<i>R. Randolph Bradham, M.D., and Edward F. Parker, M.D.</i>	

Case Report

MULTIPLE TRANSECTIONS OF THE THORACIC AORTA SECONDARY TO BLUNT TRAUMA	536
<i>George E. Cimochoowski, Maj, Peter J. Barcia, Maj, Tom R. DeMeester, Lt Col, Louie H. Griffin, Lt Col, and Malcolm E. Fishback, Col, all MC, USA</i>	

Note

USE OF THE ULNAR ARTERY FOR MONITORING ARTERIAL BLOOD PRESSURES AND BLOOD GASES	541
<i>Paramjeet S. Chopra, M.D., George M. Kroncke, M.D., G. C. Dacumos, M.D., William P. Young, M.D., and Donald R. Kahn, M.D.</i>	

How to Do It

A NEW METHOD OF STERNAL APPROXIMATION	544
<i>Joseph J. Timmes, M.D., Sidney Wolvek, Marco Fernando, M.D., Maurice Bas, M.D., and Joyce Rocko, M.D.</i>	
TUBE MILKING DEVICE	547
<i>Harvey J. Engelsher, M.D.</i>	

Editorial

THE IMPORTANCE OF DEFINING LOCATION AND STAGING OF SUPERIOR PULMONARY SULCUS TUMORS	549
<i>Donald L. Paulson, M.D.</i>	

<i>Notice from the Southern Thoracic Surgical Association</i>	455
---------------------------------------------------------------	-----

<i>Notice from The Society of Thoracic Surgeons</i>	552
-----------------------------------------------------	-----

Number 6: June 1973

Original Articles

- WHITHER IN MATURITY? 553
Benson B. Roe, M.D.
- A PROPOSED NEW TECHNIQUE FOR CORRECTION OF
TRANSPOSITION OF THE GREAT ARTERIES 565
C. E. Anagnostopoulos, M.D.
- SEVERE CONGENITAL PULMONARY STENOSIS WITH PULMONARY
VALVULAR DYSPLASIA SYNDROME: DIAGNOSTIC AND SURGICAL
EXPERIENCE IN 3 CHILDREN 570
Richard M. Schieken, M.D., Sidney Friedman, M.D., and William S. Pierce, M.D.
- SURGICAL PALLIATION OF SINGLE VENTRICLE WITH
PULMONARY STENOSIS 578
Michael P. Holden, M.D., Fergus J. Macartney, M.D., and Marian I. Ionescu, M.D.
- SURGERY FOR POSTINFARCTION VENTRICULAR ANEURYSM 588
*Gideon Merin, M.D., Thomas T. Schattner, M.D., James R. Pluth, M.D.,
Robert B. Wallace, M.D., and Gordon K. Danielson, M.D.*
- MITRAL VALVE REPLACEMENT WITH VIABLE AORTIC
HOMOGRAFT VALVES 592
Lorenzo Gonzalez-Lavin, M.D., and Theodore X. O'Connell, M.D.
- CLINICAL EXPERIENCE WITH AN IMPROVED MITRAL
VALVE PROSTHESIS 601
*Arthur C. Beall, Jr., M.D., George C. Morris, Jr., M.D., Jimmy F. Howell, Jr., M.D.,
Gene A. Guinn, M.D., George P. Noon, M.D., George J. Reul, Jr., M.D.,
Jack J. Greenberg, M.D., and Jay L. Ankeney, M.D.*
- USE OF CONTINUOUS POSITIVE AIRWAY PRESSURE IN THE
IMPROVED POSTOPERATIVE MANAGEMENT OF NEONATAL
RESPIRATORY EMERGENCIES 607
*J. Alex Haller, Jr., M.D., James S. Donahoo, M.D., John J. White, M.D.,
Patricia C. Moynihan, M.D., and Antonio G. Galvis, M.D.*
- EMPHYEMA AFTER PNEUMONECTOMY 615
*George L. Zumbro, Jr., Maj, Robert Treasure, Col, James P. Geiger, M.D., Col (Ret),
and David C. Green, Col, all MC, USA*
- SYMPTOMATIC HISTOPLASMOSIS IN CHILDREN 622
Gerard S. Kakos, M.D., and James W. Kilman, M.D.

Case Reports

- ANEURYSM OF THE SINUS OF VALSALVA RESULTING FROM BACTERIAL ENDOCARDITIS 628
E. Carmack Holmes, M.D., Carl E. Bredenberg, M.D., and Robert K. Brawley, M.D.
- THORACIC WALL DESMOID TUMOR IN A CHILD 632
Paul J. P. Bolanowski, M.D., and Diller B. Groff, M.D.

Note

- A SIMPLE METHOD TO FACILITATE DIFFICULT INTRAAORTIC BALLOON INSERTIONS 636
David Bregman, M.D., Hooshang Bolooki, M.D., and James R. Malm, M.D.

How to Do It

- CONTOURED KNITTED DACRON BAFFLE FOR REPAIR OF TRANSPOSITION OF THE GREAT VESSELS 640
Denton A. Cooley, M.D., Don C. Wukasch, M.D., and Frank M. Sandiford, M.D.

Collective Review

- SYSTEMIC MYCOSES—PRIMARY PATHOGENIC FUNGI 644
Maruf A. Razzuk, M.D., Harold C. Urschel, Jr., M.D., and Donald L. Paulson, M.D.

Editorial

- SPECIAL TRAINING PROGRAMS IN THORACIC SURGERY 661
Myron W. Wheat, Jr., M.D.

- Review of Recent Books 665

- Notice from the Southern Thoracic Surgical Association* 627
Notice from The Society of Thoracic Surgeons 666